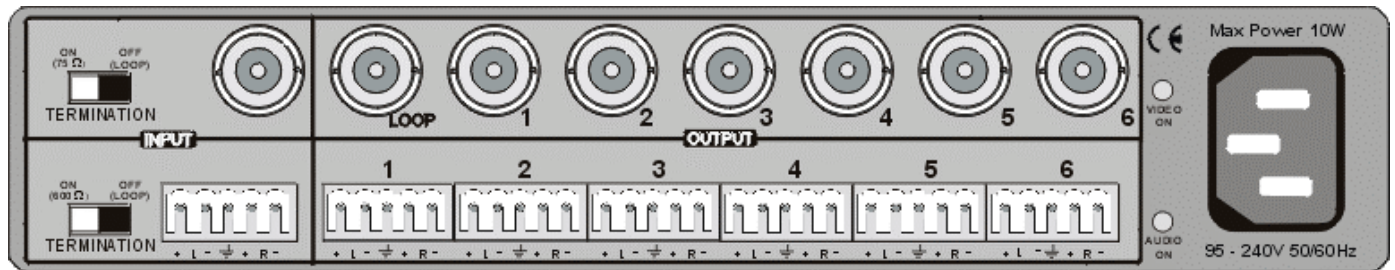


# DISTRIBUTION AMPLIFIERS



MANUAL PART NUMBER: 400-0067-003  
PRODUCT REVISION: 1

## DAV0106-V1A2

### 1-IN, 6-OUT VIDEO/AUDIO DISTRIBUTION AMPLIFIER USER'S GUIDE

**ALTINEX**

SIGNAL  
MANAGEMENT  
SOLUTIONS

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# DISTRIBUTION AMPLIFIERS

## INTRODUCTION

Altinex appreciates your purchase of the **DAV0106-V1A2** Distribution Amplifier. We are sure you will find it to be a reliable and useful product.

Superior performance for the right price backed by solid technical and customer support is what we have to offer.

The product you are holding in your hands is designed using state-of-the-art technology and is superior to anything available on the market. You will find this and our other products reliable, long lasting, and simple to operate.

We are committed to providing our customers with solutions to the most demanding audio-visual installations at very competitive pricing.

We appreciate your selection of our products and are confident that you will join the ranks of our many satisfied customers throughout the world.

### **This manual covers:**

**DAV0106V1A2** - 1-in, 6-out Video/Audio Distribution Amplifier.

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# DISTRIBUTION AMPLIFIERS

## PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **DAV0106-V1A2** Distribution Amplifier. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **DAV0106-V1A2** and to prevent fire and shock hazard. Please read them carefully and heed all warnings.

### 1.1 GENERAL

- Unauthorized personnel shall not open the unit since there are high-voltage components inside.
- Qualified Altinex service personnel, or their authorized representatives must perform all service.

### 1.2 SAFETY GUIDELINES FOR THE RACK-MOUNTING OF THE DAV0106-V1A2

- Maximum operating ambient temperature is 35 (degrees C).
- Never restrict the air flow through the devices' fan or vents.
- When installing equipment into a rack, distribute the units evenly. Otherwise, hazardous conditions may be created by an uneven weight distribution.
- Connect the unit to a properly rated supply circuit.
- Reliable Earthing (Grounding) of Rack-Mounted Equipment should be maintained.

### 1.3 INSTALLATION

- For best results, place the **DAV0106-V1A2** Distribution Amplifier on a flat, leveled surface in a dry area away from dust and moisture.
- To prevent fire or shock, do not expose this unit to rain or moisture. Do not place the **DAV0106-V1A2** Distribution Amplifier in direct sunlight, near heaters or heat radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.

- Handle the **DAV0106-V1A2** Distribution Amplifier carefully because dropping or jarring can damage internal components.
- Do not place heavy objects on top of the **DAV0106-V1A2**. If the is to be mounted to a table or wall, use only Altinex made mounting accessories, such as rack mount shelf (**DA1293FC**, **DA1294FC**) and cables for optimum setup.
- To turn off the main power, be sure to remove the cord from the power outlet. The power outlet socket should be installed as close to the equipment as possible, and should be easily accessible.
- Do not pull the power cord or any cable that is attached to the **DAV0106-V1A2** Distribution Amplifier.
- If the **DAV0106-V1A2** Distribution Amplifier is not used for an extended period, disconnect the power cord from the power outlet.

### 1.4 CLEANING

- Unplug the **DAV0106-V1A2** power cord before cleaning. Clean surfaces with a dry cloth. Never use strong detergents or solvents, such as alcohol or thinner. Do not use a wet cloth or water to clean the unit.

### 1.5 FCC / CE NOTICE

- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant, to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may

# DISTRIBUTION AMPLIFIERS

cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- Any changes or modifications to the unit not expressly approved by Altinex, Inc. could void the user's authority to operate the equipment.

## ABOUT YOUR DISTRIBUTION AMPLIFIER 2

The **DAV0106-V1A2** Distribution Amplifier, a product of exceptional quality and design, consists of video and stereo audio amplifiers.

The video amplifier is designed to provide six buffered and amplified outputs from one input signal. The input and output signals are isolated to prevent ground loops. An additional BNC connector is provided to make the input signal available for additional connections, or to serve as a loop output. The input termination is switch selectable to either be 75 Ohms or unterminated.

The audio amplifier is designed to provide six buffered and amplified outputs for both left and right channels. The input and output signals are isolated to prevent ground loops. The input termination is switch selectable to either be 600 Ohms or high impedance.

The **DAV0106-V1A2** Distribution Amplifier will allow the connection of video and audio amplifiers simultaneously.

The **DAV0106-V1A2** Distribution Amplifier is a state-of-the-art product with a bandwidth of 130MHz for video signals, which enables it to remain transparent to the incoming video signals passing through it. It also has a bandwidth of 10Hz to 20kHz for audio signals.

The **DAV0106-V1A2** can pass NTSC, PAL or SECAM type video signals. The **DAV0106-V1A2** can drive output signals up to 75 feet or more when it is used with high-quality coaxial cables.

The **DAV0106-V1A2** receives power from a universal power supply and accepts input from 95 to 240 Volts AC at 50 or 60 Hz.

## TECHNICAL SPECIFICATIONS 3

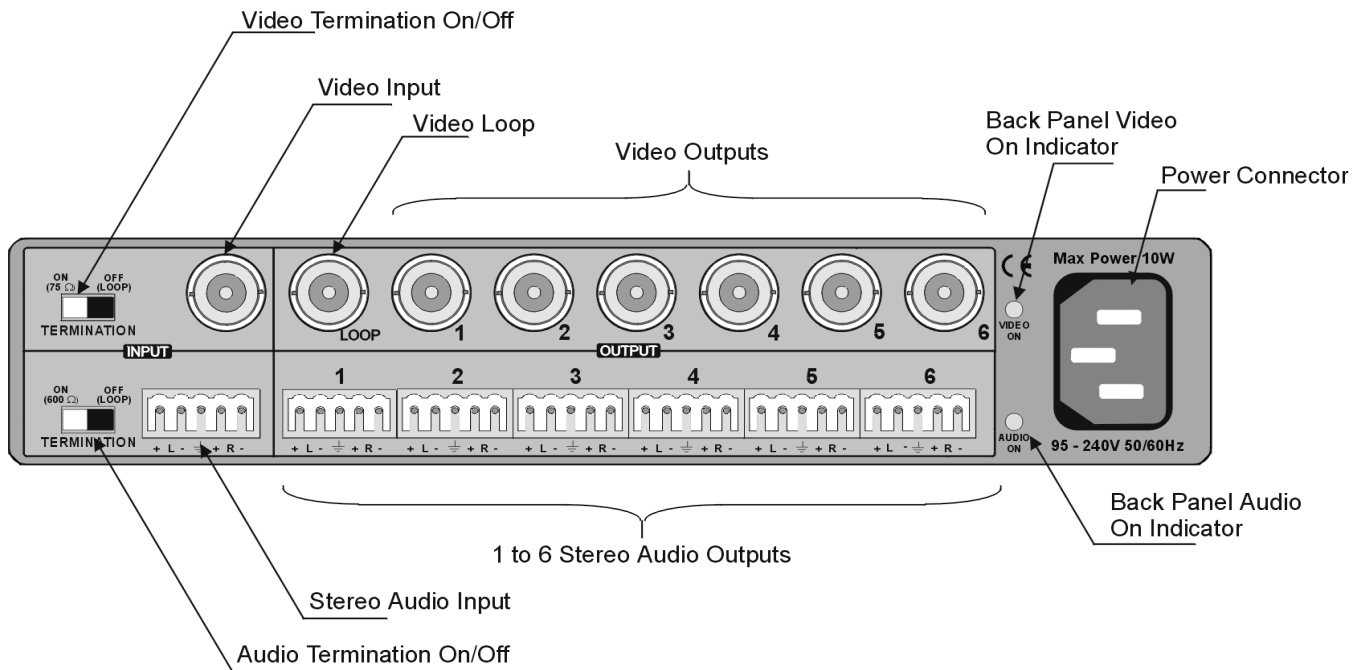
FEATURES/ DESCRIPTION	Video	Audio
<b>Compatibility</b>	NTSC, PAL, SECAM, Composite Video	Stereo or Mono Audio
<b>No of Inputs</b>	1	1
Input Connector	One BNC Female	One 3.5 mm 5-pin Terminal Block
<b>Input Signals</b>		
Level	1.7V	10 V p-p max
Impedance	75 Ohms or unterminated	600 Ohms or high impedance
Type	Differential input isolated from GND	Differential input isolated from GND
<b>No of Outputs</b>	6, +1 input loop	6
Output Connector	Seven BNC Female	Six 3.5mm Terminal Blocks
<b>Output Signals</b>		
Level	3V p-p max	10V p-p
Impedance	75 Ohms	Low - drives 600 Ohms
Type	Outputs isolated from GND	Differential input isolated from GND
Gain	0d B	0d B unbalanced, +6d B balanced
Differential Gain/Phase	less than 0.02% @ 20 IRE, 0.01° @ 20 IRE	—
<b>Frequency Compatibility</b>		
Typical Bandwidth	85 MHz @ -3d B	10 Hz – 20 kHz
Flatness	0.1d B to 30 MHz	—

# DISTRIBUTION AMPLIFIERS

<b>Power</b>	
Internal Power Supply	90-140V/ 200-240V
Power Consumption	10 watts max
<b>Enclosure</b>	
Material	0.1" Al
Finish	Gray
Top panel	Lexan
Height (inches)	1.75in (44mm)
Width (inches)	8.50in (216mm)
Depth (inches)	4.93in (125mm)
Weight	2.0lbs. (0.91kg)
Ship Weight	4.0lbs. (1.81kg)
T° Operating	10°C-35°C
T° Maximum	50°C
Humidity	50% non-condensing
MTBF (calculations)	40,000 hrs

## DESCRIPTION OF DAV0106-V1A2 4

### BACK PANEL OF DAV0106-V1A2



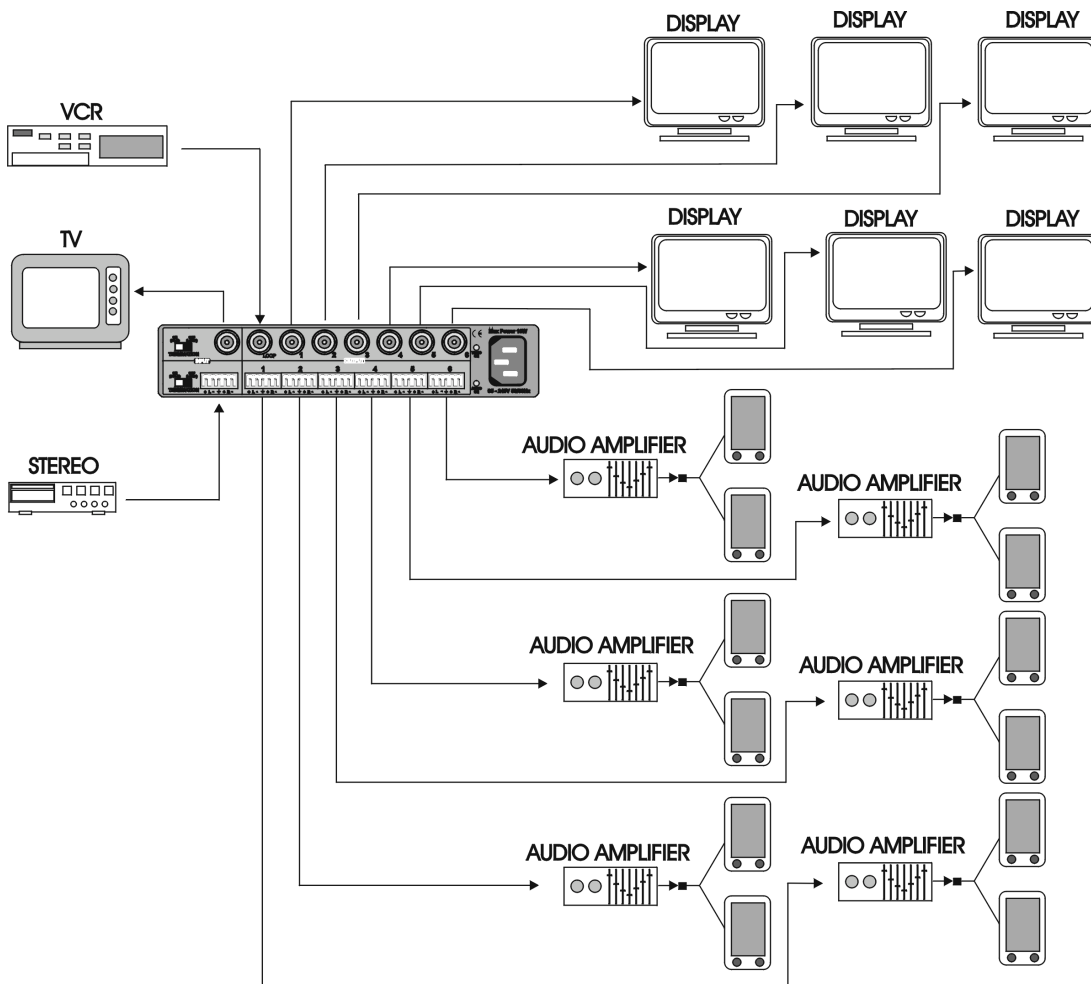
# DISTRIBUTION AMPLIFIERS

## FRONT PANEL OF DAV0106-V1A2



## APPLICATION DIAGRAM

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## INSTALLING YOUR DISTRIBUTION AMPLIFIER

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- Step 1.** Connect the power cord to the unit and plug it into the power outlet. The power indicator LED on the front panel will light. This indicates that the unit is operational.
- Step 2.** Connect the video/audio output of the source (TV, VCR, etc.) to the input of the **DAV0106-V1A2** using high quality cables. The active signal indicator on the back panel will light. This indicates an input signal on the input of the distribution amplifier.
- Step 3.** Connect the output channels of the amplifier to the display devices, such as monitors or projectors.
- Step 4.** Verify that the quality of output signals on all displays or speakers is good. If the quality of the output signal is less than perfect, make sure that all connections are solid and high quality cables are used.

**CONGRATULATIONS! YOU ARE DONE.**

**If you experience any problems, please call  
1-800-258-4623 or 1-714-990-2300 for  
international calls.**

## OPERATION

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The **DAV0106-V1A2** will operate successfully as long as cables are attached properly and other technical specifications are met.

### 7.1 TERMINATION SWITCH

The termination switch of the video amplifier, when set to the ON position, will provide 75 Ohms of termination to the input. If the termination switch is in the OFF position, the input will be unterminated. Use the OFF position when using the Video Loop to pass the Video input to a local display, for instance. This switch does not affect the termination of any output signal.

The termination switch of the audio amplifier may be set to 600 Ohms on the audio input if it is in the ON position, and high impedance in the OFF position.

# DISTRIBUTION AMPLIFIERS

## ACCESSORIES 8

Model No.	Description
	<b>TABLE MOUNT BRACKETS</b>
TM1271	1 U High, ½ Rack-Wide
TM1272	1 U High, ½ Rack-Wide with 15-pin HD connector plate
TM1273	1 U High, ½ Rack-Wide with SNAP-IN connectors
TM1274	1 U High, ½ Rack-Wide with SNAP-IN and power connectors
	<b>RACK MOUNTING BRACKETS</b>
DA1293FC	19" - 1U Rack Mount Shelf (for tandem 2- Units)
DA1294FC	19"- 1U Rack Mount Ears for single unit
	<b>HIGH RESOLUTION MULTI-CHANNEL COAX CABLE</b> length XX = 3, 6, 12, 25, 50, 75, 100, 150 feet
CB41XXMR	4 BNC to 4 BNC
CB42XXMR	5 BNC to 5 BNC
	<b>SUPER HIGH RESOLUTION MULTI-CHANNEL COAX CABLE</b> length XX = 3, 6, 12, 25, 50, 75, 100, 150 feet
CB43XXMR	4 BNC to 4 BNC
CB44XXMR	5 BNC to 5 BNC
	<b>PLENUM-FLEX MULTI-CHANNEL COAX CABLE</b> length XXX = 3, 6, 12, 25, 50, 75, 100, 150, 200, 250 feet
CB5000PL-5BM0XXX5BM	5 BNC to 5 BNC, high resolution coax cable
CB5100PL-5BM0XXX5BM	5 BNC to 5 BNC, super high resolution coax cable
	<b>POWER CABLES</b>
PC5301US	Power cable for US
PS5302UK	Power cable for England
PS5303AU	Power cable for Australia
PS5304GR	Power cable for Germany

## FREQUENTLY ASKED QUESTIONS 9

No:	Question	Answer
1	What is a distribution amplifier?	A distribution amplifier is a device that allows you to connect a single signal source to multiple display devices, such as monitors or projectors used in presentation applications.
2	When do I use the <b>DAV0106-V1A2</b> ?	In some cases a composite video source and (or) audio source needs to be connected to as many as six different display or recording devices.
3	Which signal format can be passed through the <b>DAV0106-V1A2</b> ?	The <b>DAV0106-V1A2</b> can pass composite video signals or high-resolution monochrome computer signals.
4	What if I don't use all of the outputs?	All of the outputs are completely independent, and it is not necessary to terminate unused outputs.
5	May I use simultaneously both Composite Video and Audio?	Yes, you may have audio and video simultaneously when using the <b>DAV0106-V1A2</b> Distribution Amplifier.



## TROUBLESHOOTING GUIDE 10

- Please make sure that the input amplitude video analog signal is less than 3V p-p, and the audio voltage level is less than 10V p-p.
- Make sure to use the correct power cable with the appropriate connector for the country in which it is being used.
- If the image quality is poor, please make sure that the proper quality of cables is used. Make sure that the cables used for input and output are coaxial-type with matched impedance. Also, make sure that the pins of the connector are in good condition and the cable connector fits snugly into unit's female connector. We recommend an Altinex made cable for best results.
- If a problem arises after continuous usage at higher voltage, higher temperature, and higher humidity or at other extreme environmental conditions, please correct the problem.

## ALTINEX POLICY 11

### 11.1 LIMITED WARRANTY

Altinex warrants that its products and cables are free from defects in materials under normal use and service. This warranty is limited to repairing at company's factory any part or parts of the product, which upon company's examination shall disclose to be, thus defective. Products shall be returned to the company with transportation charges pre-paid within 2 years (90 days for cables) from date of shipment to the purchaser. The warranty is expressly instead of all other warranties expressed or implied. Altinex neither assumes nor authorizes any other person to assume for it any other liability in connection with the sale of the products. This warranty shall not apply to any product that has been repaired or altered outside of company's factory in any way so as, in its judgment, to affect its stability or reliability, or that has been subject to misuse, negligence or accident.

### 11.2 RETURN POLICY

It is very important to Altinex that you receive the products that you have ordered and that this product fulfills your need. In the unlikely event, that an Altinex product needs to be returned please follow the policy below:

Altinex will accept product returns for a period of 30 days from authorized Altinex dealers. Products must be returned in an unopened package.

If the product has been opened, the restocking fees will apply. For the restocking fee amount, please contact an Altinex Sales Representative.

If the product is in your possession for more than 30 days, the restocking fees will also apply.

Altinex will not accept any returns on cables or custom products.

If your product is in warranty and needs service, contact the Altinex Sales Department for an RMA (Return Material Authorization). Products returned without an RMA number may experience a delay in service.

If your product is out of warranty and needs service, contact the Altinex Sales Department for an RMA (Return Material Authorization). Products returned without an RMA number may experience a delay in service. The service charges will be quoted to you before the actual repairs are done.

### 11.3 CONTACT INFORMATION

#### Sales Department

Phone: 714-990-2300  
Fax: 714-990-3303

#### Accounting Department

Phone: 714-990-6088  
Fax: 714-990-5778